

About NCFI

An Innovative Leader for Five Decades

NCFI has been an industry leader and innovator of spray foam insulation and roofing systems solutions since 1964. NCFI’s superior insulation and roofing technologies not only help families and commercial businesses save on heating and cooling costs, they help secure homes and commercial facilities against some of nature’s harshest forces. We also sell and service the equipment to facilitate these applications, assuring end users a single, reliable support resource for their foam-in-place operations.

Highest Product Quality Available

We start with the finest raw materials from proven, reliable sources to develop our high-quality, advanced spray polyurethane foam and premium acrylic coatings. Our high-performance products must pass an array of quality control measures before ever reaching the job site. All ingredients are accurately weighed and blended for optimum performance. All systems are quality control tested for conformity to NCFI specifications. Our spray polyurethane foam is shipped from our manufacturing facilities to meet your specific project requirements.

The Best Trained Applicators in the Business

Certification as a GoldStar<sup>SM</sup> Applicator requires contractors to successfully complete a comprehensive NCFI-led training program, ensuring they are properly equipped to meet and exceed each customer’s needs. Our hands-on training covers all technical aspects of accurate spray polyurethane foam application and proper equipment operation, including step-by-step procedures, parts information, and troubleshooting guides. Contractors learn the most effective ways to apply NCFI’s high-quality spray polyurethane foam and premium coatings to achieve a high-performance solution. Our technical representatives can join you on-site to help explore the best approach to solving your unique construction problems.

INSULSTAR® 1.7 TECHNICAL DATA  
SPRAY FOAM SYSTEM

DISTINGUISHING CHARACTERISTICS

- + Low GWP
- + Passed Appendix X with no Ignition Barrier
- + High Yields
- + Meets ASTM E84, FS <25, SD <450 @ 4”
- + Air Impermeable Insulation at ½”
- + Approved with DC315 coating in lieu of code prescribed thermal barrier
- + Class II Moisture Vapor Retarder @ 1”
- + Approved for use in Type I, II, III, IV, V construction
- + Contact NCFI regarding the specific approved wall assemblies.

TYPICAL PHYSICAL PROPERTIES\*1

Free Rise Core Density*2, ASTM D 1622	1.7 pcf
Closed Cell Content, ASTM D 6226	>90%
R-value @ 1” ASTM C 518	7.1
Air Perm @ 1/2” & 75 Pa ASTM E2178	0.0048 L/(m-s²)
Moisture Vapor Perm	0.95 perms
Flammability ASTM E84 @ 4 inches	Flame Spread <25 Smoke Dev <450
Maximum Service Temp	180°F

\*1 The above values are average values obtained from laboratory experiments and should serve only as guide lines.  
\*2 Free rise core density should not be confused with overall density. Overall densities are always higher than free rise core densities and take into account skin formation, thickness of application, environmental conditions, etc.

R-VALUES\*

Thickness (inches)	R-Value (°F·hr·ft² / Btu)	Moisture Vapor Perm
1”	7.1	0.947
2”	13	0.474
3”	20	0.316
3.5”	23	0.271
5.5”	37	0.172
6”	40	0.158
7”	47	0.135
8”	53	0.118
9”	60	0.105

\*Note: As with all insulating materials, the R-value will vary with age and use conditions.

NCFI’s Innovative InsulStar 1.7

NCFI’S 1.7 LB. INNOVATIVE CLOSED-CELL, SMARTSPF™ HFO INSULATION GIVES TRADE CONTRACTORS A NEW PROFIT CENTER IN THE RESIDENTIAL MARKET



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**InsulStar® 1.7** is a 1.7 lb/ft<sup>3</sup> density, closed-cell polyurethane foam insulation applied as a liquid to the wall, ceiling, attic or floors. The liquid reacts, expands, and cures in place, forming a fully adhered, seamless insulating and air-blocking membrane that helps seal walls to prevent air penetration and block outside noise pollution. The results are a quieter home and lower energy costs.



## **InsulStar® 1.7 SmartSPF HFO Low GWP Insulation is ideal for contractors who need extreme yield, high R-value, and dimensional stability.**

The closed-cell structure of InsulStar® 1.7 blocks air movement and has a low permeance, which controls moisture vapor movement, eliminating the need for an additional vapor retarder. When moisture vapor is controlled, condensation will not occur, thus eliminating the water needed to support mold growth. InsulStar® 1.7 is naturally able to inhibit the growth of bacteria and fungus (mold) per the ASTM C1338 tests. The anti-microbial properties do not protect occupants of spaces insulated with InsulStar® 1.7 from the effects of molds, mold spores, or disease organisms that may be present in the environment.

### **WE MADE IT BETTER**

NCFI's new Closed-Cell 1.7 lb. foam was the first commercially viable 1.7 lb. material on the US market. Now, it's even better. **InsulStar® 1.7** has all the industry leading attributes of its big brother, InsulStar 2.0 lb.:

- + High Yield
- + Excellent Sprayability+ Highly consistent
- + Excellent air and water barrier
- + High R-Value (7.1 at one inch)
- + Sprays great in a wide range of ambient temps
- + Can acts as drainage plane
- + Part of the NCFI's White House recognized SmartSPF product line of low GWP building products
- + Comes with NCFI's Legendary Customer Care

### **HOMEOWNER BENEFITS**

- + Significant savings on monthly energy bills
- + Provides superior R-value of 7.1 at one inch, reducing both heating and cooling costs
- + Creates an air barrier that aids in eliminating leaks and energy loss
- + Provides a vapor retarder that controls moisture problems
- + Specially formulated to inhibit mold, mildew and bacterial growth\*
- + Improves indoor air quality by helping block dust and pollutants
- + Reduces outside noise by helping create a seamless, airtight, insulated barrier
- + Strengthens walls and increases overall structural integrity by adhering and bonding to the wall surface
- + Provides secondary water barrier
- + FEMA Class 5 Flood-Resistant Material

### **DESIGN BENEFITS**

- + Adaptable to uniquely shaped, hard-to-insulate designs
- + Easy to install so you finish a job under budget and ahead of schedule
- + Creates a fully adhered and monolithic membrane for a seamless insulation envelope
- + Watertight within seconds of being applied
- + Can be applied to the underside of roof decks to form conditioned or cathedralized attic areas
- + Normally unusable attic area can be "harvested" by converting it into usable living space
- + Crawl space insulation can be installed in a non-vented configuration for greater energy savings
- + Building code compliant ER - 0667
- + Installed by trained and highly experienced GoldStar contractors
- + Damp-proofs by creating a seamless membrane between the inner and outer walls
- + Proven insulating power - NCFI SPF systems have been applied successfully for more than 50 years

\* The anti-microbial properties do not protect occupants of spaces insulated with InsulStar® insulation from potential deleterious effects of molds, mold spores, or disease organisms that may be present in the environment.